





# **Shock and Vibration Information Analysis Center**

AVIAC is the DoD focal point for research and analysis in the field of shock and vibration technology and is managed by the U.S. Army Engineer Research and Development Center. Specific areas covered by SAVIAC include rotating machinery, blast-induced explosion effects, shock, underwater explosion, ground shock, air blast, detonation physics, fragmentation, transportation and vehicular vibration, missile and torpedo flight vibration, biodynamics, earthquake technology, satellite or other space vehicle vibration and dynamics, ship dynamics, and structural dynamics. These technical areas are covered across the spectrum of technical developments, including theoretical analysis, finite element modeling, finite difference modeling, smooth particle hydrodynamic modeling, experimental modal analysis, field environment definition, laboratory test and evaluation procedures, data analysis, and instrumentation.

SAVIAC is also concerned with the economic aspects of the shock and vibration industry, economic considerations with respect to selection of techniques and processes, and industrial trends in applying current safety monitoring and failure prevention of in-service material.

## **Special Tasks & Products**

#### The Shock & Vibration Symposium

SAVIAC manages the annual Shock and Vibration Symposium, which is the leading forum for the structural dynamics and vibration community to present and discuss new developments and on-going research.

#### **Current Awareness Newsletter**

This newsletter provides the community with monthly up-to-date news, recent articles appearing in major publications, upcoming conferences and courses, and other items of general interest.

#### Shock & Vibration Journal

In cooperation with SAVIAC, IOS Press publishes the professional journal, Shock and Vibration, which contains new technology articles, book reviews, software reviews, and current publication abstracts.

#### Critical Technologies in Shock & Vibration Journal

This journal presents state-of-theart research performed by the government and its contractors which is not releasable due to export restrictions.

#### Conference Proceedings on CD-ROM

SAVIAC publishes the Shock and Vibration Symposium proceedings on CD-ROM, as well as proceedings from other technical conferences. The proceedings are fully searchable by author, title, or full-text keywords, and include graphic images of each paper.

### SAVIAC serves as a central information resource for all aspects of shock and vibration, including:

- Computational Structural Dynamics
- · Crash Dynamics
- Damage Identification
- Damping
- Dynamic Analysis Methods
- · Finite Element Analysis
- Fluid-Structure Interaction
- Impact/Penetration Mechanics
- Instrumentation
- · Isolation Systems
- · Machinery Vibration
- Material Dynamic Properties
- Scale Modeling
- · Shock Characterization
- · Shock Hardening
- · Simulation Methods
- Test Criteria & Test Tailoring
- Vibration Control

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